

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PARAGUAY

CADASTRE AND PROPERTY REGISTRY PROGRAM

(PR-0132)

LOAN PROPOSAL

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BASIC SOCIOECONOMIC DATA

For basic socioeconomic data, including public debt information, please refer to the following address:

ENGLISH:

<http://www.iadb.org/RES/index.cfm?fuseaction=externallinks.countrydata>

SPANISH:

<http://www.iadb.org/RES/index.cfm?fuseaction=externallinks.countrydata>

ABBREVIATIONS

DGRP	Directorate of Public Registries
IBR	Instituto de Bienestar Rural [Rural Welfare Institute]
INDI	Instituto Paraguayo del Indígena [Indigenous Institute of Paraguay]
MAG	Ministry of Agriculture and Livestock
PRUT	Land Use Rationalization Program
PTI	Poverty-targeted investment
SEAM	Office of the Environment
SEQ	Social equity
SICAR	Cadastral and Records Information System
SICUGA	Servicio Intermunicipal de Catastro Urbano del Gran Asunción [Intermunicipal Urban Cadastre Office of Greater Asuncion]
SNC	National Cadastral Service
UBEF	Basic family economic unit



REGIONAL

IDB LOANS

APPROVED AS OF SEPTEMBER 30, 2002

	<i>US\$Thousand</i>	<i>Percent</i>
TOTAL APPROVED	2,708,413	
DISBURSED	2,135,564	78.8%
UNDISBURSED BALANCE	572,849	21.2%
CANCELLATIONS	469,380	17.3%
PRINCIPAL COLLECTED	1,251,099	46.2%
APPROVED BY FUND		
ORDINARY CAPITAL	2,478,076	91.5%
FUND FOR SPECIAL OPERATIONS	217,210	8.0%
OTHER FUNDS	13,127	0.5%
OUTSTANDING DEBT BALANCE	884,465	
ORDINARY CAPITAL	826,124	93.4%
FUND FOR SPECIAL OPERATIONS	57,617	6.5%
OTHER FUNDS	724	0.1%
APPROVED BY SECTOR		
AGRICULTURE AND FISHERY	12,284	0.5%
INDUSTRY, TOURISM, SCIENCE TECHNOLOGY	58,991	2.2%
ENERGY	1,459,140	53.9%
TRANSPORTATION AND COMMUNICATIONS	125,163	4.6%
EDUCATION	63,090	2.3%
HEALTH AND SANITATION	0	0.0%
ENVIRONMENT	129,994	4.8%
URBAN DEVELOPMENT	5,465	0.2%
SOCIAL INVESTMENT AND MICROENTERPRISE	0	0.0%
REFORM PUBLIC SECTOR MODERNIZATION	0	0.0%
EXPORT FINANCING	0	0.0%
PREINVESTMENT AND OTHER	854,286	31.5%

* Net of cancellations with monetary adjustments and export financing loan collecti



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Paraguay

Tentative Lending Program

2002

Project Number	Project Name	IDB US\$ Millions	Status
<u>PR0125</u>	Social Investment Program II	28.4	APPROVED
<u>PR0132</u>	Cadastral Registry	9.0	
Total - A : 2 Projects		37.4	
<u>PR0147</u>	Paraguay Social Nourishment and Protection Program	50.0	
Total - B : 1 Projects		50.0	
TOTAL 2002 : 3 Projects		87.4	

2003

Project Number	Project Name	IDB US\$ Millions	Status
<u>PR0137</u>	Support to Public Financial System Reform	50.0	
<u>PR0145</u>	CT Loan Support to Financial System Reform	4.5	
<u>PR0124</u>	Primary and Pre-School Education	30.0	
<u>PR0143</u>	Asuncion Costal Development Program	55.0	
Total - A : 4 Projects		139.5	
<u>PR0146</u>	Strengthening the Judiciary Branch Program II	7.0	
<u>PR0120</u>	Agricultural Services Program	29.0	
<u>PR0129</u>	Public Administration and Modernization	20.0	
<u>PR0138</u>	Support to Reform Social Security System	20.0	
Total - B : 4 Projects		76.0	
TOTAL - 2003 : 8 Projects		215.5	
Total Private Sector 2002 - 2003		0.0	
Total Regular Program 2002 - 2003		302.9	

*** Private Sector Project**



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REGIONAL

STATUS OF LOANS IN EXECUTION AS OF SEPTEMBER 30, 2002

(Amounts in US\$ thousands)

APPROVAL PERIOD	NUMBER OF PROJECTS	AMOUNT APPROVED	AMOUNT DISBURSED	% DISBURSED
Before 1996	1	130,000	18,573	14.29%
1996 - 1997	3	420,000	45,228	10.77%
1998 - 1999	1	44,000	19,000	43.18%
2000 - 2001	2	41,650	0	0.00%
2002	1	20,000	0	0.00%
TOTAL	8	\$655,650	\$82,801	12.63%

* Net of Cancellations . Excluding export financing loans.

CADASTRE AND PROPERTY REGISTRY PROGRAM

(PR-0132)

EXECUTIVE SUMMARY

Borrower and guarantor:	Republic of Paraguay	
Executing agency:	Ministry of Finance	
Amount and source:	IDB (OC):	US\$ 9 million
	Local:	US\$ 1 million
	Total:	US\$10 million
Terms and conditions:	Amortization period:	20 years
	Grace period:	3 years
	Disbursement period ¹ :	3 years
	Interest rate:	variable
	Inspection and supervision:	1.00%
	Credit fee:	0.75%
	Currency:	currency pool
Objectives:	The general objective of the program is to promote efficient land use and to improve land use planning in Paraguay. The goal is to improve the administration of land with the country.	
Description:	The program has three components:	
	<ol style="list-style-type: none"> 1. Establishing the legal and technical basis for a cadastre (US\$3.7 million). This component will serve to increase the legal security of property title. It includes: (i) preparation of the legal framework for establishing the country's cadastre, which will formalize cadastral activity and link it to the property registry, establish systematic registry regulations, and allow for the regularization of land tenure in Paraguay; and (ii) linking the geographic and legal databases on urban and rural property in the cadastral and registry systems. 2. Modernizing the registration system (US\$3.3 million). This component will help to reduce barriers to the registration of 	

¹ The full amount of financing may not be disbursed in less than three years.

property and property transactions. It includes: (i) establishing three regional offices for the Public Registries Directorate (DGRP) in the Departments of Alto Paraná, Itapúa and Caaguazú; (ii) design and implementation of departmental campaigns to publicize and promote the properties registry; (iii) computerization of all property registrations and information records on businesses and associations, prohibitions, powers and ownership rights in family relationships, nationwide, and the corresponding files; (iv) a study for modernizing management and administration in the DGRP; and (v) training for DGRP officials.

3. **Modernizing the cadastral system (US\$1.2 million).** This component will enhance the operations of creating, updating and maintaining cadastral records in the country. It consists of: (i) updating the computerized database of the National Cadastral Service (SNC), by computerizing cadastral files (close to one million urban properties and 682,000 rural properties) and urban maps for the entire country; (ii) establishing district boards for updating property information, in which the municipalities will participate; (iii) decentralizing cadastral services in the country by assigning SNC staff to the three departmental offices of the DGRP; (iv) technical assistance for preparing standards and procedures for creating and updating cadastral records and preparing maps; (v) training for SNC officials; and (vi) establishing boundaries for 35 municipalities to lay the legal foundation for municipal jurisdiction for eventual regularization of land tenure.

**The Bank's
country and
sector strategy:**

The Bank's strategy for Paraguay seeks to: (i) support efforts to achieve sustained and sustainable economic growth in the context of regional integration, so as to reduce poverty and inequality; and (ii) contribute to the country's institutional modernization in the context of democratic consolidation. Bank actions are therefore to focus on the following strategic areas, which must be pursued simultaneously: (i) development and modernization of the productive structure; (ii) modernization of the State; (iii) rural development; and (iv) social sector reform.

The proposed operation will contribute to the Bank's country strategy in terms of modernization of the State and rural development. The program will support modernization of the State by modernizing the operations of both the executive and the judicial branches, as well as strengthening local governments by giving them access to a significant source of revenues, i.e. property taxation. By supporting efforts to regularize land tenure, the program will also contribute to

rural development. Currently, 57 percent of the poor and 79 percent of the extremely poor live in rural areas in Paraguay, and cannot derive any of the economic benefits associated with title over one of their few sources of capital, which is land.

**Environmental
and social
review:**

The program does not call for any activities that would have a negative environmental effect. Indeed, the program, by providing further support for government activities in the area of land use planning, will contribute to the sound management of natural resources and the environment. Specifically, implementation of the Cadastral and Registry Information System (SICAR) will mean the establishment and maintenance of a cadastral database integrated with the registry database, which will be interconnected with the Geographic Information System of the Ministry of Agriculture (MAG) and with the National Environmental Information System of the Office of the Environment (SEAM). The SICAR will maintain property-specific information on such things as the ownership status in indigenous communities, female heads of household, land in the National System of Protected Areas, and privately or publicly owned areas subject to environmental restrictions. Once the system is in place, the basic property information in SICAR will be available to the MAG, SEAM, the Indigenous Institute of Paraguay, local governments and civil society organizations.

Benefits:

By addressing the factors underlying the current irregular land tenure situation in Paraguay, the program will generate benefits of several kinds: (i) it will eliminate significant barriers to the registration of property transactions, and will produce savings for people in the departments of Itapúa, Alto Paraná and Caaguazú by extending access to registry services for people outside Asunción, it will increase productivity by streamlining the process of registering transactions or amendments, and it should reduce registration costs once the internal management system of the DGRP has been modernized; (ii) it will increase legal certainty, and will provide indirect benefits in terms of taxation and environmental management, by keeping cadastral records up-to-date; and (iii) it will establish a legal framework for addressing problems in the property adjudication process under the Agrarian Reform, and will eventually provide a source of revenue through the implementation of programs to regularize land tenure.

Over the longer term, activities designed to improve the land tenure situation in Paraguay and to provide full ownership rights to those now occupying the land will generate benefits of three kinds: (i) they will reduce uncertainty about ownership and give creditworthy farmers access to the financial markets, which in turn will encourage the investments needed to raise agricultural productivity and to preserve soil quality in a strategic sector of the economy; (ii) they will

allow rural families with little economic capital to derive greater benefits from the asset represented by their land; and (iii) they will make property taxation more effective as a mechanism for promoting the productive use of land, encourage the emergence of an institutionalized real estate market, and further the goal of decentralization by providing municipalities with their own source of revenue.

Risks:

The risk associated with the program objectives is failure to approve the legal framework for regularization of property title and for formalizing cadastral activity and linking it to the properties registry. This risk is being minimized through workshops to publicize draft legislation, and to discuss and reach consensus on specific issues: members of the executive, legislative and judicial branches, as well as civil society, will be invited to take part in these workshops.

The major risk to achieving the program's goal is that there may be only limited demand for property registration services, especially in the departments covered by the program. This risk will be minimized through a publicity campaign to promote property registration.

Special contractual conditions:

Prior to the first disbursement, in addition to the standard conditions, the borrower, through the executing agency, will fulfill the following special conditions to the Bank's satisfaction:

- (i) Entry into force of the agreement between the executing agency and the Supreme Court of Justice for execution of this program (paragraph 3.7).
- (ii) Entry into force of legal provisions authorizing operation of the property and cadastral registries in the departments of Caaguazú, Alto Paraná and Itapúa, in accordance with terms and conditions agreed upon in advance with the Bank (paragraphs 3.11 to 3.16).

Within 24 months after the effective date of the loan contract, the executing agency will submit to the Bank's satisfaction the final report on the study for modernizing the administrative management of DGRP, together with an action plan for implementing the recommendations made in the study (paragraph 3.13).

Other special conditions include submission to the Bank of the semi-annual progress reports referred to in paragraphs 3.28 and 3.29, and the ex post evaluation report referred to in paragraph 3.31.

Poverty-targeting and social sector classification:	This operation does not qualify as a social equity-enhancing project, as described in the key objectives of Bank activity set forth in the Report on the Eighth General Increase in Resources (document AB-1704), nor does it qualify as a poverty-targeted investment (PTI) (see paragraph 4.12).
Exceptions to Bank policy:	None
Procurement:	Procurement of goods and services will be done in accordance with Bank procedures, as stipulated in the loan contract. Consulting services will be hired in accordance with the procedures indicated in document GN-1679-3. With respect to contracting based on quality and price, the relative weight of price as an evaluation criterion may not exceed 30 percent. Consequently, the technical or quality element of the bid must account for at least 70 percent of the weighting. International competitive bidding will be mandatory for the procurement of goods and services of US\$250,000 or more and US\$200,000 or more for consulting services. These thresholds are consistent with those recommended by the Bank's Procurement Unit for this sector in Paraguay. Procurement for amounts less than these thresholds will be based on national legislation, provided it is compatible with Bank procedures. The program does not call for the execution of any construction works.

I. FRAME OF REFERENCE

A. The land tenure situation in Paraguay

- 1.1 Paraguay has a total land area of 40 million hectares, of which the eastern zone, home to nearly the entire population, accounts for 16 million. About 97 percent of this land is in private hands and is divided among more than 300,000 holdings, according to the 1991 Agricultural Census. According to that census, about 40 percent of rural properties have no title or carry less than full property rights. Moreover, it is estimated that 60 percent of farmers with fewer than 10 hectares are in this situation. Among the many land tenure problems identified are the following: (i) occupancy of land by people who do not have ownership title; (ii) informal occupancy of public lands; (iii) subdivision and informal sale or transfer by the owners of properties with titles granted by the State; (iv) discrepancy between the actual size of a property and the dimensions registered in deeds in the properties registry; (v) occupancy of land by people who have inherited it without going through legal inheritance procedures; and (vi) overlapping or competing ownership rights to the same property.
- 1.2 The following factors have contributed to the irregular land tenure situation in Paraguay: (i) the existence of barriers to the registration of property transactions; (ii) the legal uncertainty of ownership titles; and (iii) the land adjudication process that was initiated in 1963. These factors are described below.

1. Barriers to the registration of property transactions

- 1.3 If the properties registry is to offer a true guarantee of ownership rights, it is essential that the registered titles accord with the reality in the field. To ensure such consistency at all times, any transaction that amends, extinguishes or creates ownership rights over a property must be recorded in the properties registry. The registration of transactions, then, is essential for keeping the registry system up-to-date.
- 1.4 In Paraguay there are a number of restrictions on the registration of property transactions that encourage informality and the consequent irregularity of land tenure. These restrictions are:
- a. *Restricted access to registry services.* Registry services are available only in Asuncion, which poses a problem for people living outside the capital.
 - b. *Lack of understanding of the advantages of the properties registry system.* Many people, especially low-income rural dwellers, are unfamiliar with the procedures for regularizing and registering their property, and are unaware of the benefits of doing so.

- c. *Slow processing of transactions or modifications.* There are two factors that make property registration a slow process: (i) many registration techniques are used, which requires the keeping of separate files, and (ii) registration is done manually, and only in one copy, which is subject to deterioration through humidity in the archives and the constant handling of files, tampering and loss, and improper wording of ownership titles. In 1997, the *Folio Real* was launched as the model technique for archives management. The *Folio Real* technique generates a single registration certificate for each property, which makes the registration system more efficient by including in that certificate the ownership history and successive transactions and amendments affecting the property. Currently, 98,730 certificates (9.3 percent of all certificates in the country) are managed by this technique. The efficiency of the registry system will be increased even further if this certificate can be computerized (it is now done manually and on paper), generating an electronic *Folio Real*.
- d. *The cost of property registration.* Property registration requires payment for the survey certificate, registration certification, tax compliance certification, registration fees, filing charges, administrative expenses and notary fees. These costs may amount to as much as 5 percent of the value of the property, and this figure can rise to 6 percent if the property tax is included. These costs are a disincentive to the registration of property transactions, and they need to be critically assessed in light of the real cost of providing the service.

2. The legal insecurity of ownership titles

- 1.5 In order to guarantee full land ownership rights, the ownership deed recorded in the properties registry must contain a clear and accurate description of the property and its owner. When it comes to the property, the description must include its boundaries and its surface area, in order to identify its precise geographic location.
- 1.6 In Paraguay, ownership titles identify a property geographically by its historic boundaries. This method of identification fails to take into account the changing nature of the reference parameters used, and the difficulty of verifying them in the field. As well, many titles do not show the surface area of the property, because the notary responsible for registration was unfamiliar with procedural requirements. The lack of a clear and accurate geographic description of a property can lead to multiple registration of the same piece of land, without any possibility of detecting the anomaly, thereby reducing the legal security of the title. It is estimated that 70 percent of properties with property lines identified in the field show a discrepancy between the legally registered surface area and the actual size.
- 1.7 The government of Paraguay has taken two steps in recent years to improve the legal security of ownership titles: (i) it established a legal and institutional

framework for creating and updating the national cadastre¹ in 1992, and (ii) precise information must now be submitted on the location, boundaries and surface area of a property, contained in a cadastral plan, at the time documents are registered for any transfer of ownership or for the constitution of real rights to properties subdivided since 1998. These represent essential first steps towards linking physical information from the cadastral system with the legal information in the properties registry. This linkage of the cadastral and registry systems will make it possible to replace the current system of titles, where the geographic description is inaccurate, by a system of geo-referenced titles, and it will also allow the cadastre to be updated over the longer run through the registration of transactions with these deeds in the registry, and the identification of inconsistencies between the physical reality of a property and the information in the database.

- 1.8 As part of its cadastral activities in the country, and with the support of the World Bank (see section C for an analysis of the operation), there is now an accurate geodesic control network, with aerial photography at the scale of 1:75,000 (1:20,000 for the most densely populated areas) and digital orthophoto maps at 1:25,000 (1:5,000 for the most densely populated areas) for the Eastern Region and part of the Chaco, and a computerized system for storing, handling and printing orthophoto maps. With these tools, cadastral surveys have been produced for some 120,000 rural properties covering 2.4 million hectares in the department of Itapúa and in the southern portion of Alto Paraná (15 percent of the country's Eastern Region). The information gathered on tenure, location and economic value of each property is recorded in the Cadastral Information System, created for that purpose. While the results of this cadastral survey are available to municipalities for the calculation of property taxes, however, they are not very useful because of the irregular ownership status of the properties surveyed.

3. The land adjudication process

- 1.9 In 1963, the country launched an agrarian reform in order to achieve a better distribution of land. To this end, the government encouraged the creation and consolidation of colonial settlements, through the sale of public lands in remote and underpopulated areas or the expropriation and purchase of lands in more settled areas. These lands were redistributed through the adjudication of properties to eligible beneficiaries. According to the February 2002 census of colonies, there are currently 229 colonial settlements occupying about 375,000 hectares and representing 40 percent of properties in the Eastern Region.
- 1.10 The adjudication of lands under the agrarian reform worsened the irregular situation of tenure in rural areas for the following reasons:

¹ The cadastre is the public record of all physical, economic and legal data on properties included within the national territory.

- a. *The deeds issued by the State confer only limited property rights to the land in question.* Ownership titles granted by the State under the agrarian reform (upon payment of 50 percent of the value of the land) declared the adjudicated properties inalienable and unattachable and prohibited their sale or lease for 10 years after full payment of the price of the land, except with express approval from the authorities. This situation has prevented beneficiaries from full enjoyment of the benefits of their asset, because they do not have rights of full ownership and free transfer. As a result, many beneficiaries were obliged to sell their lands informally, thereby creating irregular tenure in the areas covered by the agrarian reform.
 - b. *The adjudication process was not properly handled.* The lack of an efficient system for land administration in the colonial settlements, with accurate information on the number and status of proceedings under way, has not only meant continuous delays in the processing of files (the backlog is currently estimated at 100,000 cases), but also resulted in multiple titles for many properties. Moreover, the lands subject to the adjudication process are not linked to the national cadastral system, which makes it difficult to record them in the properties registry once definitive title is issued.
- 1.11 In February 2002 a new legal framework was established for the adjudication of lands in colonial settlements (Law 1863, Agrarian Statute). Under this law, the down-payment on the property value that is required to receive title from the State is reduced from 50 percent to 25 percent. Nevertheless, there are still restrictions on the free negotiation and transfer of title, which means that the informal land market continues to thrive in these colonies. According to the law, these restrictions are to be lifted five years after the full value of the property has been paid. This new legal framework also introduces the concept of the Basic Family Economic Unit (UBEF), which establishes a lower limit on the size of properties in the colonies, reflecting the income-generating potential of the property. Not only is the UBEF difficult to measure, but the occupants of properties that have been informally subdivided to a size below the current limit of 10 hectares would be excluded when it comes to regularizing land tenure. It is estimated that 70 percent of the properties are of a size that falls below this limit.

B. The public institutional framework for land administration

1. The cadastre

a. National Cadastral Service

- 1.12 The National Cadastral Service (SNC), created in 1992 as a technical division of the Ministry of Finance, is responsible for surveying real properties, both rural and urban. Its functions include: (i) establishing and maintaining an updated multiple-use cadastre describing the physical, legal and economic aspects of each parcel of

land in the country and identifying it with a single and inalterable geographic location code; (ii) resolving disputes over boundaries, property rights and assessed taxation value; (iii) issuing technical standards for preparation of the cadastre, and supervising their application; and (iv) providing the information required for tax purposes, as well as technical information on the cadastre for ministries, local governments and authorized entities.

- 1.13 The SNC performs these functions through a permanent structure consisting of a General Director, a General Secretariat, and six supporting units (Technical Advisory, Audit, General Secretariat, Program Coordination, Project Execution Unit, and Information Processing Office), the Department of Planning and Organization, the Department of Administration and Finance, and seven departments that perform technical supervision (Urban Cadastre, Rural Cadastre, Geo-Processing, Assessments, Cadastral Inspection and Maintenance, Regional Agencies, and Legal Services). The specific responsibilities of the major units and technical and legal departments are as follows:
- a. **Cadastre Department (Urban or Rural).** Administers and updates the new single cadastral nomenclature for identifying property; processes information from the cadastral survey and that provided by user institutions; updates cadastral information identifying properties and owners; certifies the physical, legal, economic and tax status of properties as a requirement for issuance of title.
 - b. **Assessments Department.** Assesses the value of urban and rural properties identified in the cadastral survey and updates those evaluations; handles petitions to correct the values assigned to properties; prepares tables of basic values for determining property assessment; compiles information on the market value of properties.
 - c. **Department of Cadastral Inspection and Maintenance.** Programs and conducts field audits of properties to ensure that they are properly registered, correcting any discrepancies and reporting them to the Information Processing Office for correction of the database in the Cadastral Information System.
 - d. **Legal Department.** Analyzes the legal documentation and juridical norms of cadastral administration; assists in the technical and legal analysis of consultations or proceedings arising from conflicts, and prepares the corresponding opinions.
 - e. **Information Processing Office.** Conducts all activities relating to the analysis, development, processing and supply of cadastral information stored in the Cadastral Information System; determines the equipment needed for computerizing information, and sees to its implementation.

- 1.14 The SNC has 160 employees, of whom about 80 percent are at the professional and technical level. Between 1995 and 2000, about 50 percent of employees received training in information technology so that they can make proper use of cadastral information and keep it up-to-date. Thanks to this training and the experience that staff has accumulated in working with the cadastre (paragraph 1.8), the SNC now has sufficient institutional capacity to fulfill its functions.
- 1.15 In physical terms, the SNC has only a central office in Asuncion. This office is in a renovated building that is air-conditioned for running computers, and has a full informatics network and adequate facilities for the storage of maps and aerial photographs.
- 1.16 From the financial viewpoint, the SNC has been charging for services since 2000, and the revenues from these charges cover about 40 percent of its expenses. Consistent with the government's fiscal policy, these revenues are deposited directly with the Public Treasury.

b. The municipal governments

- 1.17 In Paraguay, municipalities have jurisdiction over property taxation. For this reason, some municipalities have been producing their own fiscal cadastres in urban areas, in the absence of a national cadastre. Nevertheless, in many cases these projects are not coordinated with the national cadastral authorities, because there is no regulatory framework that allows for supervision by the competent authority.

2. The properties registry

- 1.18 The administrative authority responsible for registering properties in Paraguay is the Directorate of Public Registries (DGRP), which operates under the Judicial Organization Code (Law 879/81). The DGRP is a dependency of the Supreme Court of Justice. Property registration is organized among 14 sections, each covering several districts of the country's departments. Each section is headed by a Section Chief who reports to the General Director and is supported by staff. The total number of employees of the DGRP is about 400.
- 1.19 It is estimated that 65 percent of employees have no legal or registrar training and this fact, combined with the manual technique for the *Folio Real* and the lack of any systematic standards for registration or resolving problems, slows down the registration process and delays the issuing of documents. Currently, it takes on average 10 working days to register a property transaction in the DGRP.
- 1.20 The DGRP has a Properties Registration System, which meets current standards for use of the Electronic *Folio Real*. Nevertheless, the system is currently being used in only two property registration sections.

3. Adjudication of lands

- 1.21 The Rural Welfare Institute (IBR), an autonomous institution with its own legal status created in 1963, is responsible for subdividing its own and private lands for the establishment of rural colonies and settlements, issuing ownership title to properties that have been authorized for transfer, authorizing the sale, assignment or lease of properties it owns, and supervising compliance with the Agrarian Statute.
- 1.22 The IBR consists of a council, comprising six members including the President, who is the senior administrative authority. Under the President is the General Manager, who is responsible for five internal branches [*gerencias*] and the Department of Rural Agencies. The IBR has 575 employees, 119 of whom are deployed away from headquarters.
- 1.23 As in previous years, the IBR is now undergoing an administrative reorganization in order to adapt it to the new Agrarian Statute. The IBR has a reputation for inefficiency that it has been trying to overcome, in a context where the stock of public lands available for adjudication is virtually exhausted. This situation means that the IBR has to redefine its role in terms of land administration.

4. Land use

- 1.24 The perception that land was an abundant resource, that its fertility would renew itself naturally and that the intensity of land use was low meant that for many years Paraguayan agriculture was based on extensive exploitation, at the expense of the primary forest. Recognizing the impossibility of continuing to expand the agricultural frontier, given the limited supply of land suitable for farming, the Ministry of Agriculture and Livestock (MAG) has been obliged to redefine its strategy. This strategy is now directed towards conserving the quality of land by promoting sustainable farming practices.
- 1.25 The MAG has been putting together a national land use plan. Currently, the Office of Natural Resources [*Sub-Secretaría de Recursos Naturales*] has a geographic database that includes thematic information on natural vegetation and the current and appropriate use of soils, compiled from field observations and other sources.

C. Activities by international agencies in the sector

1. Activities of the Bank

- 1.26 The Bank sought to support the regularization of land tenure in Paraguay through the Rural Colonies Program (694/OC and 891/SF). Under this program, 3,412 titles were issued (of the 5,000 originally planned) with the ownership restrictions established in previous agrarian legislation. These titles sparked an informal land market in the vicinity of the project, because they did not convey full ownership rights to the occupant. In terms of conferring title for indigenous communities'

lands in Paraguay, this operation financed the preparation of a land purchase plan, as well as the purchase and titling of 20,000 hectares for seven indigenous colonies. As well, the Bank supported the titling of some 4,400 hectares in five areas affected by works under the National Rural Roads Program I (744/OC and 745/OC), as part of the efforts to protect ten indigenous communities. This activity was delayed because of problems in identifying the lands that were to be turned over to the indigenous communities for settlement. The proposed program will establish a geographic database needed for the proper identification of indigenous community lands.

- 1.27 With the Municipal Strengthening Program (793/OC-PR, 794/OC-PR and 920/SF-PR) the Bank financed urban cadastral projects to establish property tax rolls in 15 municipalities (six of which are within Greater Asuncion and nine in the interior). While these cadastres were to be prepared using the technical standards issued by the SNC as the national cadastral authority, the lack of regulatory mechanisms meant that they failed to take account of the property identification nomenclature established by the SNC. This fact, together with the absence of linkages between the survey information and the properties registry, will limit the usefulness of these cadastres for taxation purposes in the future, unless this information is continuously updated over time. The proposed program will establish rules and procedures for the establishment and updating of municipal property tax rolls.

2. Activities of the World Bank and bilateral donors

- 1.28 With the support of the World Bank and the governments of Japan and the United States, the Government of Paraguay undertook a cadastral program in 1992 covering the rural areas of the country, through the Land Use Rationalization Program (PRUT). The objectives of that operation were: (i) to improve the government's information base in order to make the land titling system more effective, to allow the long-term planning of natural resource use, to improve agricultural extension services, and to increase fiscal revenues from the agricultural sector; and (ii) to lay the basis for strengthening the institutions responsible for land settlement and the protection and management of natural resources. Through the PRUT, the SNC and the MAG conducted the activities described in paragraphs 1.8 and 1.25. During execution, additional funding was given to the DGRP for computerizing the issuance of certificates. The cost of the operation was US\$33.6 million, and it was completed in June 2000.
- 1.29 The technical assessment of that operation concluded that its objectives were reached. Nevertheless, the cadastral results from the project revealed extensive problems with land tenure. For 70 percent of the private properties surveyed, discrepancies were found between the actual boundaries and surface areas and the official information recorded in the properties registry. As well, the existing legal framework prevented the surveying of the IBR's colonial settlements. The

persistence of tenure problems reduced the usefulness of the cadastre, especially for taxation purposes. In terms of execution, the assessment concluded that delays in implementing much of the PRUT were due to the fact that the main institutions responsible for land administration in the country were not involved at the design stage of the program but were included only late in its execution, and without any direct responsibility.

3. Lessons learned

1.30 A number of lessons have been learned from the design and execution of activities by international agencies in the sector, and those lessons have been incorporated into the program proposed here:

- a. *Any program for regularizing land tenure, including the issuance of titles, must imply the conveyance of full property rights to the occupant.* Providing occupants with land titles that do not convey full and clear ownership rights will lead to irregular tenure situations, with negative socioeconomic and environmental consequences for the country. The proposed program seeks to establish a legal basis for regularizing tenure anomalies created by the titling and adjudication processes that were pursued in Paraguay under the Agrarian Reform, and to ensure that future activities of this kind convey to occupants clear and full ownership rights over their property.
- b. *Any cadastral program must provide for continuous maintenance and updating of information.* Without systematic maintenance and updating, a cadastre loses its validity as a record of property information over the long term. The proposed program will support the preparation of a normative framework for establishing regulatory mechanisms for cadastral surveying, and will link cadastral information with the properties registration system. These actions will allow for the maintenance and continuous updating of future cadastral efforts in the country.
- c. *In areas where irregular land tenure is a problem, cadastral programs will be of little use if property rights are not regularized.* Reconciling the legal reality in the field with the information in the properties registry at the time the survey is performed makes it possible to identify precisely the limits to ownership rights over the properties, and to locate them geographically and by owner. In this way, the reliability and transparency of cadastral information can be enhanced for legal, fiscal or environmental purposes. The proposed program will establish a legal basis for a systematic, proactive and cost-effective national cadastre and the legal regularization of property rights.
- d. *If efforts to improve land administration are to be successful, the responsible public institutions must participate in them from the outset.* The proposed program has involved the principal land administration entities of the country

from the design stage onward, and their executing responsibilities have been clearly defined.

D. The Bank's strategy in the country

- 1.31 The Bank's strategy for Paraguay seeks to: (i) support efforts to achieve sustained and sustainable economic growth within the context of regional integration, so as to reduce poverty and inequality; and (ii) contribute to the country's institutional modernization in the context of democratic consolidation. Bank actions are therefore to be focused in the following strategic areas, which must be pursued simultaneously: (i) development and modernization of the productive structure; (ii) modernization of the State; (iii) rural development; and (iv) social sector reform.
- 1.32 The proposed operation will contribute to the Bank's country strategy in terms of modernization of the State and rural development. In the first case, the program will support modernization of the State by upgrading the operations of both the executive and the judicial branches, as well as strengthening local governments by giving them access to a significant source of revenues, i.e. property taxation. In the second case, by supporting efforts to regularize land tenure, the program will also contribute to rural development. The rural sector currently accounts for 57 percent of poor people in the country, and 79 percent of the extremely poor, who currently derive no economic benefit from ownership title over one of their few sources of capital, which is land.

E. The conceptual design of the program

- 1.33 Improving the land tenure situation in Paraguay will produce long-term benefits such as sustainable growth in farming through greater productive investments, access for many rural families to the real estate market, and greater effectiveness for the property taxation system as a mechanism for promoting productive land use, institutionalizing the land market, and optimizing municipal tax revenues. Achieving these benefits will require more efficient land administration in the country, through a long-term process that will address the factors underlying the current irregular tenure situation. This process will involve simultaneous efforts in three areas: (i) eliminating barriers to registration of property transactions; (ii) increasing the legal certainty of ownership titles; and (iii) correcting the problems caused by the adjudication of properties under the Agrarian Reform.
- 1.34 Efforts to make land administration more efficient in Paraguay must be undertaken within an institutional context for modernizing the country's registry and cadastral services, in which technical regulation is in the hands of administratively and financially autonomous central entities, while maintenance of the cadastre and support for the registration of property transactions must be decentralized to municipalities. The registration and cadastral services must produce reliable inputs

for the country's land-use management. As well, the process must support the eventual withdrawal of the State from the administration of land tenure in the colonial settlements.

- 1.35 The proposed program will represent a first step in addressing the three areas described above. First, it will make a start at broadening access to registration and cadastral services in areas beyond the capital city, it will speed up the processing of property registrations and will establish the real cost of the service so that the fees can be adjusted as a means of encouraging the registration of property transactions. Secondly, the current cadastral and registration systems will be combined into a single interconnected information system, to establish a National Cadastre for the country, as a mechanism for enhancing the legal security of property titles. Third, a new legal framework will be established for addressing tenure problems on private lands and in colonial settlements in a systematic and comprehensive way, including definitive titling of lands in the colonial settlements through the delivery of titles that convey full ownership rights to the beneficiary, regardless of the size of the property. These initial efforts will result in registry and cadastral services that are more efficient, accessible and reliable, and will help to strengthen the municipalities as the entities responsible for maintaining and updating the cadastre, as well as helping the IBR to redefine its role.
- 1.36 Once these initial efforts are concluded, the Government of Paraguay will have the legal and technical requisites for addressing issues of legal reconciliation and the conduct of cadastral surveys in selected geographic areas, simultaneously and proactively. This fieldwork will have to be undertaken gradually, starting in those departments with the most acute tenure problems and with lands of greatest economic value. This work will also serve to correct the information in the current registry and cadastral systems that are already interconnected through the National Cadastre, thereby improving the legal security of existing titles. Allowing all entities involved in land administration to have access to information in the cadastral and registry system will facilitate land-use management and improve application of the property tax. As well, the Government of Paraguay will continue its efforts to expand access to registry and cadastral services for other departments in the country, as a further step towards eliminating barriers to the registration of transactions.

II. THE PROGRAM

A. Objectives

- 2.1 The general objective of the program is to promote efficient land use and to improve land-use planning in Paraguay. The goal is to improve the administration of lands within the country.
- 2.2 The specific results of the program will be: (i) to increase the legal security of property titles; (ii) to reduce the barriers to the registration of property transactions; and (iii) to improve the establishment, updating and maintenance of cadastral information in the country. These three results will be achieved through three components, as described below.

B. Description of components

1. Establishing the legal and technical basis for a national cadastre (US\$3.7 million)

- 2.3 This component will serve to increase the legal security of ownership titles recorded in the properties registry by preparing the legal framework for establishing the country's national cadastre. This legal framework will formalize cadastral activity and link it to the properties registry, establish a system of registry standards for the country, and allow for the regularization of land tenure in Paraguay. The component will also include funding for at least two workshops to publicize the benefits of this legal framework and to foster dialogue on the issue. With specific relation to regularizing land tenure, the component will include the preparation of technical manuals for the physical and legal reconciliation of property in Paraguay.
- 2.4 This component will also include implementation of the Cadastral and Registry Information System (SICAR), linking the geographic and legal databases on urban and rural properties in the cadastral (SNC) and registry (DGRP) systems.

2. Modernizing the registration system (US\$3.3 million)

- 2.5 This component will help to reduce barriers to the registration of property transactions by providing greater public access to property registry services through decentralization. To this end, it will finance computer equipment and DGRP staff relocation costs for the opening of three self-standing regional offices in the Departments of Alto Paraná, Itapúa and Caaguazú. It will also disseminate the benefits of property registration through the design and implementation of a department-wide campaign to promote the property registry.

- 2.6 The component will streamline the registration of transactions or amendments in the registry by consolidating the Electronic *Folio Real* in the DGRP. This will involve computerization of all property registration files (about one million files) as well as records on businesses and associations, prohibitions, powers and ownership rights in family relationships, nationwide (about 300,000 records). As well, in order to determine the impact that registration costs may have on the registration of property transactions, a study to analyze and upgrade management and administration within the DGRP will be undertaken.
- 2.7 The component will strengthen DGRP operations by providing training for its staff in such areas as legislation, surveying, information processing and operating procedures. Technical support will also be provided for supervising the contract for establishment and operation of the SICAR (consulting services, as well as travel and per-diem costs for at least three officials).

3. Modernizing the cadastral system (US\$1.2 million)

- 2.8 This component will enhance the operations of creating, updating and maintaining cadastral records in the country. It includes: (i) updating the computerized database of the SNC, by computerizing cadastral files (close to one million urban properties and 682,000 rural properties) and urban maps for the entire country; (ii) per diem expenses for establishing district boards for updating property information, in which the municipalities will participate; (iii) decentralizing cadastral services in the country by installing SNC staff in the three departmental offices of the DGRP
- 2.9 The institutional capacity of the SNC will be strengthened through technical assistance, for preparing standards and procedures to: (i) create and update cadastral records and prepare maps in urban and rural areas; and (ii) create a registry of qualified surveyors of Paraguay, administered by the SNC. Funding will also be provided for training SNC officials in operating standards and procedures, geographic and survey information systems, cadastral assessment, linkage with the registry, land administration and municipal development. The component will include technical support for the SNC in supervising the contract to establish and operate the SICAR (consulting services, as well as transportation and accommodation for three officials).
- 2.10 This component also includes establishing boundaries for 25 municipalities in the Department of Caaguazú and 10 districts in the northern part of the Department of Alto Paraná, in order to lay the legal basis of municipal jurisdiction for the future regularization of land tenure. The program will cover per diem expenses of SNC officials, purchase of computer and measuring equipment and materials needed for preparing maps.

C. Administration and supervision

- 2.11 The program includes a technical assistance contract for administration and supervision of the operation, both for the SNC and for the DGRP. It also includes funds to hire an independent firm of auditors that will audit the program.

D. Costs and financing

- 2.12 The cost of the program will be US\$10 million. The Bank will finance US\$9 million (90%) from its Ordinary Capital. The local counterpart, in the equivalent of US\$1 million (10%), will be provided by the Government of Paraguay. The following table shows the categories of investment and the source of financing for each of the activities.

COST AND FINANCING
(in US\$ millions)

Category	Bank	Local	Total	%
I. Administration & supervision	0.80		0.80	8.0
Consultants in support of SNC	0.30		0.30	3.0
Consultants in support of DGRP	0.30		0.30	3.0
Auditor	0.20		0.20	2.0
II. Direct costs	8.11	0.10	8.21	82.1
<i>1. Establishing the legal and technical basis for creating the cadastre</i>	<i>3.71</i>		<i>3.71</i>	<i>37.0</i>
Consultants and specialized services	2.71		2.71	27.1
Materials and equipment	1.00		1.00	10.0
<i>2. Modernizing the registry system</i>	<i>3.25</i>	<i>0.05</i>	<i>3.30</i>	<i>33.0</i>
Consultants and specialized services	2.75	0.05*	2.80	28.0
Materials and equipment	0.30		0.30	3.0
Training	0.20		0.20	2.0
<i>3. Modernizing the cadastre system</i>	<i>1.15</i>	<i>0.05</i>	<i>1.20</i>	<i>12.0</i>
Consultants and specialized services	0.85	0.05*	0.90	9.0
Materials and equipment	0.20		0.20	2.0
Training	0.10		0.10	1.0
III. Financial costs	0.09	0.90	0.99	9.9
<i>1. Interest</i>		<i>0.80</i>	<i>0.80</i>	<i>8.0</i>
<i>2. Credit fee</i>		<i>0.10</i>	<i>0.10</i>	<i>1.0</i>
<i>3. Inspection and supervision</i>	<i>0.09</i>		<i>0.09</i>	<i>0.9</i>
TOTAL	9.0	1.0	10.0	100

* Removal costs for SNC and DGRP officials assigned to the departmental offices, and per diem expenses for officials assigned to the district boards for updating property information, and for supervision of the SICAR.

- 2.13 The proposed loan will carry the following conditions: (i) variable interest rate; (ii) credit fee of 0.75 percent of undisbursed amounts; (iii) inspection and supervision expenses of 1 percent of the loan; (iv) disbursement period of three years;² and (v) amortization period of 20 years.

² The amount of the financing may not be disbursed in less than three years.

III. PROGRAM EXECUTION

A. Program execution and administration

- 3.1 The executing agency for the program will be the Ministry of Finance. The program will be carried out by the National Cadastral Service (SNC) with the participation of the Supreme Court of Justice, through its Directorate of Public Registries (DGRP), under the terms established in this document.

1. The National Cadastral Service (SNC)

- 3.2 The SNC will maintain proper accounts and financial records for keeping resources and uses of funds provided by the program separate from other resources administered by the SNC. It will pass on to the Bank disbursement requests and justification for eligible expenses, documentation relating to contractual conditions and bidding and competition procedures, the audited financial statements of the program, and the semiannual reports on use of the revolving fund. It will also maintain and control specific bank accounts for administration of loan resources and for the counterpart contribution.
- 3.3 The SNC will also be responsible for preparing and presenting to the Bank a series of semiannual progress reports, detailing technical and financial progress with the program. The SNC will ensure that the interim goals are met and it will disclose progress and results statements for the program to the stakeholders. In preparing these reports, the SNC will use information provided by the DGRP, in accordance with the terms established in this document and the time limits agreed by the parties.
- 3.4 The SNC will be responsible for executing the **modernization of the cadastral system** component, for which it will prepare public bidding procedures, sign contracts and make the relevant payments, as well as supervise technical aspects of the contracts. With respect to the component for **establishing the legal and technical basis for the cadastre**, the foregoing work will be conducted jointly by the SNC and DGRP, except for the respective payments that are to be made exclusively by the SNC.
- 3.5 The work of the SNC will be coordinated by the head of the Project Execution Unit created by Resolution 1156 of the Ministry of Finance in June 2000. This official, who will answer directly to the Director of the SNC, will be assisted by a technical specialist responsible for coordination with the DGRP, supervising the contracts and monitoring and evaluating the program; a procurement expert, responsible for the SNC's bidding procedures; and a financial administration expert.
- 3.6 Technical supervision of contracts under SNC's responsibility will involve officials of the Information Processing Office and the other relevant technical departments.

Experience gained with the PRUT project, together with the training to be provided under this project, will ensure that these officials have the technical capacity to supervise the contracts. In the specific case of the Cadastral and Registry Information System (SICAR), the SNC will receive technical assistance from individual consultants.

2. The Directorate of Public Registries (DGRP)

- 3.7 Activities under the component for **Modernizing the registry system** will be conducted by the Supreme Court of Justice, through the DGRP. The executing agency will transfer the necessary resources to the Supreme Court of Justice so that the payments can be made. For activities under its responsibility, the DGRP will prepare and conduct the appropriate bidding and contracting procedures, and will prepare the respective semiannual progress reports. Documentation on the bidding and competition procedures as well as the semiannual progress reports will be sent to the SNC for submission to the Bank. As well, the DGRP will support the SNC under the terms of paragraph 3.4, with respect to the component for **establishing the legal and technical basis for the cadastre**. With respect to the contract for computerizing property certificates, cadastral records and urban maps, the work of preparing the international bidding procedures, contracting and technical supervision will be carried out jointly by the DGRP and the SNC, with the exception of the respective payments that are to be made exclusively by the DGRP. **Entry into force of an agreement between the executing agency and Supreme Court of Justice for transfer, to the latter, on a non-reimbursable basis, of the portion of program resources earmarked for activities under its responsibility, will be a condition precedent to the first disbursement of the loan.**
- 3.8 The areas mentioned above will be coordinated by the Office of the Deputy Director General of Public Registries, who will be assisted by the registry specialist responsible for liaison with the SNC and for monitoring and evaluating activities under the DGRP's responsibility; a procurement expert, responsible for the bidding procedures; and a financial administration expert.

B. Execution mechanisms, by component

1. Establishing the legal and technical basis for creating the cadastre

- 3.9 A specialized firm will be responsible for preparing the legal framework for creation of the cadastre. The study of this legal framework must address the following: (i) establish technical specifications and define functions and powers for the national cadastral authority and for the municipalities in terms of the creation, updating and maintenance of the national cadastre; (ii) systematize legislation governing the surveying profession; (iii) procedures, authorities, mechanisms and time limits for rectifying legal gaps relating to registration activity; (iv) simplify the registration process, so that interested parties can register properties directly;

(v) legal validation of the use of computerization in the management of cadastral and registry information; (vi) compatibility and exchangeability of information between the cadastral and registry databases; and (vii) cost-efficient, temporary measures for integrating property information into the cadastre so as to permit, among other things, definitive award of title to lands in colonial settlements that will convey full ownership rights over the land to the beneficiary, regardless of the size of the holding, and will clear up tenure problems on lands, identified in paragraph 1.1. As well, the study will include amendments to legislation so that title to indigenous lands corresponds to the existence of those territories, taking into account the current practical limitations to the size of adjudications. As part of this work, the tenure situation of indigenous lands in the Chaco will be evaluated. The results of this study will include draft legal provisions, technical and operational manuals for the physical and legal regularization of properties in the future, and methodological manuals for registry and cadastral procedures. The consulting firm will be expected to have broad international experience in the regularization or rectification of property rights and in the surveying and registry of properties, preferably in Latin America.

- 3.10 A firm specializing in information systems, geographic information systems, automated cartography and systems integration will be responsible for implementing the SICAR. That firm will start work as soon as progress has been made in converting the cadastral and registry data to digital format, and will carry out the following sequence of activities: (i) evaluation of existing systems in the SNC and the DGRP, and a review of cadastral and registry requirements; (ii) integrated design and implementation plan, including the design of cadastral and registry information subsystems, review and upgrading of SICAR products (cadastral certificates, maps, individual plots and other documents needed for formalizing ownership, etc.), and the design of interconnection mechanisms between the central office and the departmental offices of SNC and DGRP; (iii) development of the database (functionality, model and structure), bearing in mind that SICAR must allow for the capture of information from future cadastral surveys and the regularization of land tenure, updating of data, production of cadastral certificates, property assessment and taxation, registration, and the generation of topographic, cadastral and thematic maps; (iv) migration and transfer of data to the SICAR digital base; (v) the building of intercommunication networks between SNC/DGRP and the IBR, the MAG, the Secretary of the Environment and the Intermunicipal Urban Cadastre Office of Greater Asuncion (SICUGA); (vi) purchase and installation of computer equipment in the three departmental offices to be established under the program and at the headquarters of SNC and DGRP; (vii) training for operation and maintenance of the SICAR; and (viii) dissemination of information, maps and statistics to government authorities and potential private users.

2. Modernizing the registry system

- 3.11 The departmental offices of the DGRP will be housed in the facilities of the judicial branch in the capital cities of the departments of Itapúa, Alto Paraná and Caaguazú, in that order. These offices will have to be established at the same time as the SICAR is set up in the corresponding department. Itapúa and Alto Paraná were selected because they already have cadastral information as a result of PRUT; Caaguazú was selected because it has one of the highest indices of informal land tenure of any department. These three departments cover 11 percent of the country's territory and account for 38 percent of rural properties. These offices will have a Section Head and at least five assistants. Through a legal arrangement (*Acordada*) with the Supreme Court of Justice, these offices will be delegated the responsibility for registry functions associated with the registration, amendment or extinction of property rights, in accordance with the applicable legal provisions. **Entry into force of the legal provisions authorizing operation of the properties registry in the capitals of the departments of Itapúa, Alto Paraná and Caaguazú, with the registry functions noted above, will be a condition precedent to the first disbursement of the loan.**
- 3.12 The digital conversion of the property records and information in the other registries covered by the program will be done through a single contract, together with computerization of cadastral and urban cartography data. This work will be performed by a specialized firm, and will include preparation, refinement, digitalization, editing of captured data, preparation of digital files and supplying them on a magnetic medium for subsequent migration to the SICAR database, which will be developed in parallel. This contract will be jointly supervised by the DGRP and the SNC.
- 3.13 A specialized firm will carry out the training activities in the DGRP, the publicity and promotion campaign for the registry, as well as preparation of the study for modernizing the administrative management of the DGRP. This firm's duties will include: (i) a critical evaluation of DGRP's efficiency in providing services, including its organizational structure, functions, methods and procedures, as well as the number and qualifications of officials and employees; (ii) estimate and comparative analysis of unit costs of the various DGRP services, in light of both the cost of similar services in Latin America and current registry fees; and (iii) determination of legal and institutional mechanisms for giving greater financial and administrative autonomy to the properties registry. The output from this study will be used to recommend organizational and administrative changes and a detailed action plan for implementing them. Implementation of these recommendations will mean elimination of the obstacles to registration of property transactions, so that any future investment in regularizing land tenure will be sustainable over time. The state of progress with this study will be reviewed during the interim program review (paragraph 3.29). Twenty-four months after the loan

contract comes into effect, the executing agency will submit the final report, together with the action plan for implementing the recommendations in it.

- 3.14 For purposes of joint administration of the SICAR implementation contract, the DGRP will be assisted by an information systems specialist (36 months). This consultant will work closely with three officials of the DGRP: a manager and two support staff.

3. Modernizing the cadastre system

- 3.15 The district boards responsible for maintaining property information will serve as liaison between SNC officials and local residents in the departments covered by the DGRP offices. These boards will keep the cadastral and registry information up-to-date in light of the demand for property transactions. Each board will include employees of the departmental cadastre and registry offices (two cadastre technicians, a cadastral assistant and a registry technician), and municipal representative. In addition, local notaries and surveyors will be invited to participate. The boards will be convened periodically, initially by the SNC and later by the municipality, as necessary. In those districts covered by the PRUT cadastre, the boards will also facilitate direct access by beneficiaries to public and private services for regularizing their land tenure (transfers, surveys, certification, succession, assignment of taxpayer numbers, registrations, etc.)³. These boards will be reinforced for these purposes with two additional officials from the SNC, and they will receive short-term technical assistance from specialized consultants (technical adviser, GIS adviser, coordinator, notaries, surveyors). At the departmental level, the boards will begin work once the corresponding office is established, except for those boards in municipalities covered by the PRUT, which may start work earlier.
- 3.16 Four SNC officials (a Chief, an operator, a cashier and an assistant) will conduct cadastral activities in each of the departmental offices of DGRP, in the capitals of the departments of Itapúa, Alto Paraná and Caaguazú (paragraph 3.11). The Ministry of Finance will issue a resolution delegating to these officials the powers to issue or cancel cadastral certificates, to authorize purchase and sale, mortgages, successions, subdivisions of properties; to assign taxpayer numbers or current accounts for properties, and subaccounts for horizontal ownership; to prepare taxation assessment reports; to issue copies of documents; to authorize the sale of maps and orthophotographs; and to conduct field inspections. **Entry into force of legal provisions authorizing operation of the cadastre in the departments of**

³ These boards will conduct the following activities in sequence: (i) examine the cadastral information obtained during the surveys conducted under the PRUT; (ii) identify any inconsistencies in the cadastral information; (iii) conduct prior consultations with the municipal authorities; (iv) municipal publicity; (v) notification of any cadastral inconsistencies to owners; and (vi) arrange visits to the district by the SNC technical group in order to regularize individual properties.

Itapúa, Alto Paraná and Caaguazú, with the functions mentioned above, will be a condition precedent to the first disbursement of the loan.

- 3.17 Specialized firms will provide training for the SNC, and will prepare regulations and procedures for: (i) establishing and updating the cadastre; and (ii) establishing a registry of qualified surveyors in Paraguay, administered by the SNC.
- 3.18 For the joint supervision of the SICAR implementation contract, the SNC will have the support of a geographic information systems specialist (36 months), a senior consultant in geo-referenced information systems (six months), and two support technicians (24 months each). These consultants will work with three officials of the SNC: a manager and two support technicians.
- 3.19 The SNC will define the district boundaries, in cooperation with the municipalities, using a team of three specialized technicians (a coordinator and two topographers), as well as office and field assistants. This activity will include the following sequence: (i) compilation of laws creating districts and preparation of preliminary maps; (ii) consideration and agreement among the districts on the preliminary map; (iii) physical identification and marking of boundaries; (iv) preparation of the technical report and final maps; and (v) legalization of the final district boundaries.

C. Procurement of goods and services

- 3.20 The procurement of goods and related services will be done by the executing agency and the DGRP as provided in this document and in accordance with Bank procedures stipulated in the loan contract. The procurement plan is shown in Annex I. Consultants will be contracted in accordance with the procedures indicated in document GN-1679-3. With respect to contracting based on quality and price, the relative weight of price as an evaluation criterion may not exceed 30 percent, and consequently the technical or quality element of the bid must account for at least 70 percent of the weighting. International competitive bidding will be mandatory for purchases valued at US\$250,000 or more for goods and related services, and at US\$200,000 or more for consulting services. These thresholds are consistent with those recommended by the Bank's Procurement Unit for this sector in Paraguay. Procurement for amounts below these thresholds will be based on national legislation, where this is compatible with Bank procedures. The program does not call for the execution of works.

D. Program execution and disbursement schedule

- 3.21 The execution period for the program will be three years. The execution schedule for the activities described in this component is shown in the following table, by quarter:

- 3.22 The planned disbursement schedule is summarized in the following table:

DISBURSEMENT SCHEDULE				
(in US\$ millions)				
YEAR	IDB	LOCAL	TOTAL	%
1	1.8	0.2	2.0	20.0
2	4.4	0.3	4.7	47.0
3	2.8	0.5	3.3	33.0
TOTAL	9.0	1.0	10.0	100

- 3.23 For disbursements under the program, a revolving fund will be established for up to 5 percent of the total value of the loan, in accordance with Bank procedures. The SNC will submit semi-annual reports to the Bank on the status of the revolving fund, within 60 days after the close of each six-month period.

E. Accounting, internal control and audit

- 3.24 Funds from the loan and counterpart contribution will be channeled through several bank accounts, which will be opened in the name of the program by the Ministry of Finance. The SNC will make payments to contractors and transfers to the Supreme Court of Justice through these accounts, and it will maintain accounting and financial records and an internal control system for handling program resources, in accordance with Article 7.01 of the General Conditions set forth in the loan contract. In this way, resources for this program can be administered separately from those of other programs administered by the SNC. The SNC will also prepare and submit to the Bank audited financial statements, the semiannual reports on the revolving fund, and other financial records as requested; it will submit disbursement requests and supporting documentation to the Bank; and it will keep a proper file of supporting documentation for contracts and disbursements made with program resources.
- 3.25 With respect to the transfer of funds from SNC to the Supreme Court of Justice, the latter will keep accounting and financial records and will use a system of internal control for handling these resources, consistent with Article 7.01 of the General Conditions set forth in the loan contract, so that resources of the program can be administered separately from those of other programs of the Supreme Court of Justice; it will prepare and submit to the SNC any financial reports requested; it will present disbursement requests and supporting documentation to the SNC; and it will keep a proper file of supporting documentation for contracts and disbursements made with program resources.
- 3.26 Audited annual financial statements for the program will be submitted to the Bank within 120 days after the close of each fiscal year. Audits will be performed by an

independent firm of auditors selected in accordance with Bank policies and on the basis of previously approved terms of reference. Audits will be conducted throughout the program execution period, and the costs will be financed with resources from the loan.

F. Monitoring and evaluation

- 3.27 The SNC will institute an information system for monitoring and evaluating program management within seven months after the effective date of the loan contract. The information system used to measure progress under the program will include the indicators in the Logical Framework (see Annex II). The semiannual progress reports prepared by the SNC, which will include the reports submitted by the DGRP, will provide input for this system. The SNC will be responsible for maintaining the system, with the support of DGRP.
- 3.28 Within 60 days after the close of each six-month period, the SNC will send the Bank a detailed report on program execution. This report will provide an analysis of technical and financial progress with the program, highlighting actions taken and goals achieved in light of the indicators in the Logical Framework, as well as a critical analysis of problems encountered and measures taken to deal with them. Reports for the second half of each year will also contain programming for the following year. The executing agency and the Bank will agree on any changes or adjustments to the program in light of these reports.
- 3.29 The executing agency and the Bank will conduct an interim review 18 months into the program. That review will include: (i) progress in achieving program goals, in light of the results indicators in the Logical Framework; (ii) the results of interagency cooperation between the SNC and the DGRP during execution; (iii) progress with the study for modernizing DGRP's administrative management; (iv) results of the district boards for updating property information as a means for maintaining the cadastral and registry information; (v) demand for registry and cadastral services in the departmental offices in operation; (vi) the effectiveness of the program's information systems, including the details contained in this section F; (vii) the effectiveness of mechanisms for publicizing results; and (viii) compliance with contractual commitments. Within 30 days at the latest before the time limit indicated above for effecting this review, the executing agency will submit a report to the Bank covering the issues for evaluation.

G. Ex-post evaluation

- 3.30 Consistent with Bank policy, it has been agreed, in consultation with the borrower, to conduct an ex-post evaluation as part of program activities. This evaluation will be financed by the borrower and will be conducted by the Ministry of Finance.

- 3.31 This evaluation will be conducted two years after program execution is completed, and will use the baseline indicators in the Logical Framework (Annex II). That evaluation will include, but will not be limited to: (i) impacts on the efficiency of services offered by DGRP and the SNC; (ii) the cost-effectiveness of the DGRP departmental offices in Itapúa, Alto Paraná and Caaguazú, and that of the district boards for cadastre maintenance; (iii) progress in improving the legal framework for creation of the cadastre, including the physical and legal regularization of land tenure in the country; and (iv) the operational status of the SICAR.

IV. FEASIBILITY AND RISKS

A. Institutional feasibility

- 4.1 As the entity responsible for executing the PRUT, the SNC participated directly in the technical supervision of contracts with specialized firms, and in the procurement of equipment. Among the contracts it supervised was that for establishing the Cadastral Information System. Similarly, the DGRP successfully launched the Properties Registry System. Both of these systems are essential inputs for establishing the Cadastral and Registry Information System (SICAR). Thanks to this experience, officials of both institutions are familiar with the use of modern information systems to improve the quality of service. Better understanding in the computer area, together with the training in basic cadastral and registry activities that was imparted through the PRUT, should ensure that the contracts called for in the program will be supervised properly and that the required knowledge and new technology will be transferred to these two institutions.
- 4.2 As part of the ongoing process of strengthening these two institutions, the program will support training for their personnel. As a supplement to the training received with PRUT funding, SNC officials will receive instruction in the areas of operating standards and procedures, geographic and cadastral information systems, linkage to the registry, land administration and municipal development, while DGRP officials will receive training in jurisprudence, surveying, information processing and operational procedures. As well, both entities will receive specialized training for maintaining the SICAR, through the firm responsible for its implementation.

B. Technical feasibility

- 4.3 With the support of the consultants, the SNC and the DGRP have prepared the technical studies required for the various program components. These studies include a critical assessment of the problems at hand, the definition of objectives for the proposal, a description of activities and a cost spreadsheet, an execution timetable, terms of reference for contracting and technical specifications for equipment, and feasibility analysis. The studies include the calculation of unit costs and technical parameters used for estimating the total costs of each proposed investment, including estimated travel and accommodation expenses for officials of these institutions involved in the opening of departmental offices, the establishment of district boards, and supervision of the SICAR.
- 4.4 In the case of SICAR, its design will take account of the current cadastral information systems that were introduced as part of the PRUT in the SNC, as well as the existing electronic *Folio Real* in the DGRP. The structure of SICAR will include two interconnected subsystems: (i) the cadastral information subsystem, which will consist of technological infrastructure and a database of homogeneous

and accurate graphic and alphanumeric information that will integrate and optimize the current coverage and functionality of the cadastral information system, the cadastral exploitation system, the existing geographic base (with distribution of survey plats, geodesic, photogrammetric and cadastral points, and maps produced during the PRUT) and digital orthophotos for the country's eastern zone; and (ii) the registry information subsystem, which will include databases from various sources, including those that exist in digital format for the *Folio Real* section and information in paper format. To ensure the highest quality standards for SICAR products, its design will include guarantees of efficient access to data within acceptable times; it will contain security mechanisms as well as those needed for the exchange of data; and it will define a system of coordinates and technical specifications for handling information at the national and departmental levels.

C. Economic and financial feasibility

- 4.5 The proposed program is expected to reduce the transaction costs currently associated with the limited registry services outside Asuncion, unfamiliarity with the benefits of registration, and time-consuming registration procedures. The savings represented by reducing these costs should generate greater demand for registry services, especially in the three departments targeted by the program.
- 4.6 The annual economic cost of each of DGRP's departmental offices, including the cost of SNC cadastral activities, is estimated at US\$63,200. This amount includes salaries for the 10 employees of these two entities who will be working in each office (US\$30,000), as well as maintenance (US\$10,800), and annualized employee transfer costs (US\$5,000) and investments (US\$17,400). Annualization of these expenses is based on a discount rate of 12 percent and an expected useful life of five years for the equipment. Since roughly 70 percent of cadastral transactions require some kind of entry in the properties registry, and assuming that current cadastral fees (US\$2.50 per transaction) and registry fees (averaging US\$12 per transaction) remain constant over time, the number of cadastral transactions that would be needed each year to cover the economic cost of each office is 5,800. It should be possible to achieve this level of demand in the offices for Itapúa and Alto Paraná, departments in which between 9,300 and 10,100 cadastral transactions are now being processed every year. In the case of Caaguazú, the number is 5,300, but demand is expected to rise once the district cadastral boards are in place.

D. Social and environmental impact

- 4.7 By improving the irregular situation of land tenure in the country, the program will help over the longer term to: (i) raise investment levels both in productive activities and in soil conservation; and (ii) allow many low-income producers and groups to enjoy the economic benefits associated with clear property title, such as access to credit and the real estate market. In addition, by expediting real estate market

transactions, the program will help improve land distribution in Paraguay over the long term.

- 4.8 The program does not call for any activities that would have a negative environmental effect. Indeed, by providing further support for government activities in the area of land use planning, the program will contribute to the sound management of natural resources and the environment. Under the PRUT, a geographic information system was established to formulate and implement a land use strategy, the principal objective of which is to encourage sound natural resources management as a basis for sustainable agricultural development. As part of the implementation of the Geographic Information System in the MAG, the following activities were undertaken: (i) creation of an inventory of natural resources and socioeconomic information; (ii) preparation of thematic maps showing current land use, primary forest cover and agricultural suitability of lands for the eastern region; (iii) establishment of a multiple access information system; and (iv) training for personnel of the Natural Resources and Environment Office of the MAG. As well, the PRUT financed establishment of a soil laboratory at the National University, as well as two analytical studies intended to produce recommendations for public policies as they relate to soil use, and especially to settlements, roads, credit and protection of indigenous communities, as well as a more detailed analysis of the environmental legal framework intended to enhance the role of the public and private sectors in promoting rational land use and land use planning.
- 4.9 The program will build upon earlier work in land-use planning with implementation of the Cadastral and Registry Information System (SICAR). This will mean the consolidation and maintenance of a cadastral database integrated with the registry database, which will be interconnected with the Geographic Information System of the MAG and with the National Environmental Information System of the Office of the Environment (SEAM). The SICAR will maintain property-specific information on such things as the proprietary status of indigenous communities, female heads of household, lands within the National System of Protected Areas, and privately or publicly owned areas subject to environmental restrictions. The basic property information in SICAR will be available to the MAG, SEAM, the Indigenous Institute of Paraguay (INDI), local governments and civil society organizations.
- 4.10 In terms of gender considerations, the new regulatory framework established by Law 1863/02 (Agrarian Statute) requires the agrarian reform to promote women's ownership of the land. The law provides that the female heads of household be given preference in the adjudication of lands, provided they have been peacefully occupied, or where there is joint occupation. When it comes to paying for land, women are allowed an additional five years beyond the legislated limits. Ownership titles issued for purposes of adjudication show the name of both owner and spouse, in the case of a married couple, or the names of the man and the woman, in the case of common-law unions in existence for more than one year.

- 4.11 In terms of indigenous considerations, the Indigenous Communities Statute (Law 904/81) establishes procedures, without charge, for recognition, transfer and registration, indivisible and free of any encumbrance, of lands that have been traditionally occupied by indigenous communities with full legal status. Where they do not have such legal status, the INDI acts as their agent until they obtain such status. This Institute supports indigenous communities in terms of regularizing their land tenure in the following ways: (i) updating and regularization of community leadership records; (ii) recognition of legal status; (iii) regularization of indigenous property, including an official survey and preparation of the indigenous property plan, determination of problems relating to illegal exploitation of forest resources, invasion by squatters, etc., and handling the corresponding complaints; and (iv) transfer of properties in the name of the community, including the handling of procedures with municipal governments, notaries (including support for the indigenous leader to travel to the office of the notary) and DGRP. Where titled indigenous lands have been invaded, legal action for expulsion or restitution will be initiated by the IBR and the INDI. According to the INDI, there are currently 431 recognized indigenous communities in Paraguay, holding title to about one million hectares of community lands. Strengthening the Paraguayan Indigenous Institute (TC-02-04-00-8-PR) will enhance its efficiency in the formulation of public policies as they relate to indigenous peoples and in its coordination with the public and private sectors in programs to promote the development of indigenous communities.
- 4.12 The program does not classify as a PTI/SEQ project. Nevertheless, it will help to improve land administration in two departments with a higher-than-average proportion of families living below the poverty line. In the departments of Caaguazú and Itapúa these percentages are 60.6 percent and 36.8 percent, respectively, according to the latest MECOVI census (1999), compared to a national average of 34.4 percent.

E. Benefits

- 4.13 By addressing the factors underlying the current irregular landholding situation in Paraguay, the program will generate benefits of several kinds: (i) it will eliminate significant barriers to the registration of property transactions, and will produce savings for people in the departments of Itapúa, Alto Paraná and Caaguazú by extending access to registry services for people outside Asuncion, it will increase productivity by streamlining the process of registering transactions or amendments, and it should reduce registration costs once the management system of the DGRP has been modernized; (ii) it will increase legal certainty, and will provide indirect benefits in terms of taxation and environmental management, by keeping cadastral records up-to-date; and (iii) it will establish a legal framework for addressing problems in the properties adjudication process under the Agrarian Reform, and will provide a future flow of revenue through the implementation of programs to regularize land tenure.

- 4.14 Over the longer term, activities designed to improve the land tenure situation in Paraguay and to provide full ownership rights to those now occupying the land will generate benefits of three kinds:
- a. They will reduce uncertainty about ownership and allow creditworthy farmers to borrow from financial markets, which in turn will encourage the investments needed to raise agricultural productivity and to preserve soil quality in a strategic sector of the economy. The farming sector generates 26 percent of gross national product and agricultural, livestock and forestry products represent 90 percent of the country's total exports. In addition to its macroeconomic importance, the farming sector employs 35 percent of the economically active population. The preponderant role that land plays in Paraguay's economic development makes it imperative to have clear and full property rights. This is especially important in Paraguay, where the supply of land suitable for agriculture is limited. Moreover, regularizing the land tenure situation will give a boost to the real estate market and allow the transfer of rural land to more efficient uses.
 - b. They will allow rural families with little economic capital to derive greater benefits from their land, which is their principal source of income. This is especially important for rural families holding between 2 and 20 hectares (45 percent of the total), a group that has the country's lowest average income per capita and that accounts for 71 percent of poor people and 76 percent of extremely poor people in these zones, according to the 1997/98 surveys of MECOVI. The lack of full title to their land keeps these social groups excluded from the land market, and perpetuates rural poverty.
 - c. They will make property taxation more effective as a mechanism for promoting the productive use of land, encourage the emergence of an institutionalized real estate market, and further the goal of decentralization by providing municipalities with their own source of revenue. These actions include training and maintenance of a cadastre with accurate legal, geographic and economic information that is consistent with the reality in the field.

F. Risks

- 4.15 The risk associated with the program objectives is failure to approve the legal framework for regularization of property title and for formalizing cadastral activity and linking it to the properties registry. This risk is being minimized through workshops to publicize draft legislation, and to discuss and reach consensus on specific issues: members of the executive, legislative and judicial branches, as well as civil society, will be invited to take part in these workshops.
- 4.16 The major risk to achieving the program's goal is that there may be only limited demand for property registration services, especially in the departments covered by

the program. This risk will be minimized through a publicity campaign to promote property registration.

PARAGUAY
CADASTRE AND PROPERTY REGISTRY PROGRAM (PR-0132)
PROCUREMENT PLAN

Description	Financing (%)		Modality ^{a/}	Responsible entity ^{b/}	Date of publication (year - half)
	IDB	Local			
A. Specialized consulting services					
Preparation of the legal framework for establishing the cadastre and preparation of technical and operating manuals Lots: Various Amount: US\$160,000	100	0	LLCP	SNC/DGRP	2003-I
Implementation of SICAR (incl. purchase of computer equipment) Lot: 1 Amount: US\$3,230,000	100	0	ILCP	SNC/DGRP	2003-I
Digital conversion of property records, cadastral data and urban maps Lot: 1 Amount: US\$ 2,500,000	100	0	ILCP	DGRP/SNC	2003-I
Departmental campaign to publicize the benefits of the registry Lot: 1 Amount: US\$100,000	100	0	LLCP	DGRP	2003-I
Training for DGRP officials Lot: 1 Amount: US\$220,000	100	0	ILCP	DGRP	2003-I
Study: Administrative management of DGRP. Lot: 1 Amount: US\$80,000	100	0	LLCP	DGRP	2003-I
Studies: Preparation of methodology manuals and a Strategy for the Land Surveyors' Registry of Paraguay Lot: 1 Amount: US\$80,000	100	0	LLCP	SNC	2003-I
Training for SNC officials Lot: 1 Amount: US\$131,000	100	0	LLCP	SNC	2003-I
B. Goods					
Office equipment and computers: Departmental Officials of DGRP Lots: 3 Amount: US\$140,000	100	0	LCB	DGRP	2004-I
Office equipment and computers: Decentralization of cadastral functions Lot: 1 Amount: US\$20,000	100	0	LCB	SNC	2004-I
Computers and surveying equipment: Boundary definition and district boards for maintaining property information. Lots: Various Amount: US\$246,000	100	0	LCB	SNC	2003-I

a/ ICB: International competitive bidding; LCB: Local competitive bidding; ILCP: International limited call for proposals; LLCP: Local limited call for proposals

b/ SNC: Servicio Nacional de Catastro; DGRP: Dirección General de Registros Públicos.

PARAGUAY
CADASTRE AND PROPERTY REGISTRY PROGRAM (PR-0132)
LOGICAL FRAMEWORK

SUMMARY	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
OBJECTIVE			
Promote efficient land use and contribute to land use planning in Paraguay.	Increase the number of regularized properties in the country		<p>The integrated process of regularizing properties with cadastral data can be initiated at the end of the Program.</p> <p>Agencies involved in land administration have the resources needed to operate efficiently.</p>
GOAL			
Improved land management in Paraguay	<ul style="list-style-type: none"> Output per registrar in the DGRP increased from 6 to 24 entries processed per day, with more than 90 percent completed on the same day by the end of the program Recommendations for improving management, implemented by the end of the Program. DGRP offices operating with support of the SNC in capitals of the Departments of Alto Paraná, Itapúa and Caaguazú, generating total annual revenues equal to the economic cost of operation, by the end of the program. 100 cases per visit reviewed and 30 property transactions processed in districts covered by boards at the end of the program. Register of qualified surveyors in Paraguay implemented by program completion. 	SNC monitoring reports after 36 months of execution.	<p>Interinstitutional cooperation between the SNC and DGRP continues.</p> <p>Congress approves legislation for establishing the Cadastre, with the main features found in the respective drafts, during Program execution.</p>
COMPONENTS / RESULTS			
1. Establishing the legal and technical basis for a cadastre. Greater legal security for property titles registered in the property registry.	<p>1.1 Draft legal provisions for establishing the cadastre submitted for approval by month 18 of program execution.</p> <p>1.2 Cadastral and registry information linked electronically by the end of the Program</p>	<p>SNC monitoring reports after 24 and 36 months of execution.</p> <p>Copies of proposed legislation by month 18 of program execution</p>	The expected demand for property registry services materializes.

SUMMARY	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
<p>2. Modernizing the registration system. Reduced barriers to registration of transactions in property registries supported.</p>	<p>2.1 One million property certificates, 300,000 records, cadastral data for 1 million urban and 682,000 rural properties, as well as all urban maps converted from analog to digital format by the end of the program.</p> <p>2.2 Three decentralized offices of DGRP / SNC in the capitals of the Departments of Alto Paraná, Itapúa and Caaguazú interconnected with Asunción via SICAR, performing delegated cadastral and registry functions by the end of the program.</p>		
<p>3. Modernizing the cadastral system. Improved training, updating and maintenance of cadastral records.</p>	<p>3.1 36 district boards for updating property information, conducting 9, 15 and 10 visits every 6 months in the Departments of Alto Paraná, Itapúa and Caaguazú, respectively, by the end of the program.</p> <p>3.2 25 municipalities in the Department of Caaguazú and 10 in the north of Alto Paraná with physically determined boundaries by the end of the program.</p>		